

good
①
use for 2nd HF
rejection

PAT-NO: JP409093302A
DOCUMENT-IDENTIFIER: JP 09093302 A
TITLE: DIGITAL MOBILE RADIO COMMUNICATION SYSTEM
PUBN-DATE: April 4, 1997

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APPL-NO: JP07269430
APPL-DATE: September 22, 1995

INT-CL (IPC): H04L027/38 , H04B007/26

ABSTRACT:

PROBLEM TO BE SOLVED: To improve transmission quality by using phase fluctuation formation of two consecutive pilot symbols so as to calculate a frequency offset between a transmission carrier and a quasi synchronization detection reference signal of a receiver so as to compensate the offset.

SOLUTION: The number of pilot symbols consisting of known data other than a frame symbol inserted in each frame is increased from one to two and the two pilot symbols are placed adjacent to each other. That is, one frame consists of N-sets of symbols and (N-2)-sets of information symbols are in existence before the pilot symbols. In a signal to be sent, the information symbols are repeated in each frame. Let a phase difference between the adjacent pilot symbols be ϕ_m , then a frequency offset $\Delta\omega$ is expressed as $\Delta\omega = A \cdot \phi_m$. Thus, the frequency offset between a transmission carrier and a reference signal for quasi synchronization detection of a receiver is calculated by using phase fluctuation information of the two consecutive pilot symbols for compensation.